

## **Chapter 6: Water Lines**

### **6.1 Design Requirements**

The design requirements and supplemental specifications of the City of Hilliard, along with the current edition of the City of Columbus Construction and Material Specifications (CMS) and the Division of Water Standard Detail Drawings – Distribution System shall govern the design of all water lines within the City of Hilliard corporation limits.

- 6.1.1** When installing a new water line, service lines are required to be installed and tested from the main line to the curb stop. The owner/developer is required to keep as-built information and fill out a “Water Service Report” for each water service constructed. The form for the “Water Service Report” can be found in the appendix of this Manual. The report shall be submitted to the City of Hilliard as part of the water line chlorination request submittal.
- 6.1.2** An Ohio EPA Permit-To-Install (PTI) is needed when an individual wishes to construct any publicly owned and maintained water line.
- 6.1.3** When an individual wishes to construct, modify or replace a water line that is on private property, a permit through the City of Hilliard must be obtained and a fee must be paid. The permit form and fee schedule can be obtained from the City of Hilliard Building Department. This pertains to any work outside of the right-of-way or easement.

### **6.2 Noted Exceptions**

Exceptions to the CMS include:

#### **6.2.1 Section 809.02, Description of Fire Hydrants**

The following City of Hilliard fire hydrant specifications shall supersede Section 809.02:

- 6.2.1.1** Fire hydrants shall be post type, made of cast iron, and shall conform in all respects to the “American Water Works Association Standard for Dry-Barrel Fire Hydrants,” ANSI/AWWA C502-85, except where modified herein.
- 6.2.1.2** Main valve shall be compression type opening against the pressure and closing with the pressure. Main valve seat shall be made of bronze and shall be designed to allow easy replacement in the field. The design shall eliminate the contact of dissimilar metals in areas of the hydrant that are subject to the continuous presence of moisture.
- 6.2.1.3** All internal working parts shall be removable from the top of the hydrant, with simple tools, and without disturbing the ground line joint or the upper section of the hydrant barrel.
- 6.2.1.4** Breakable traffic features shall be provided, and shall include a breakable safety flange on the ground line joint, and a breakable coupling on the main valve stem at the ground line joint. The design shall assure that on heavy impact, the upper

and lower sections of the hydrant will break apart cleanly without damage to any other hydrant parts. The ground line joint shall be designed to allow the nozzle section of the hydrant to be rotated 360 degrees.

- 6.2.1.5** Nozzles shall be bronze and replaceable, designed for easy removal from the hydrant barrel, in the field, with simple tools.
- 6.2.1.6** Main valve opening shall be 4-1/2 inches in diameter for use in residential areas and 5-1/4 inches in diameter for use in commercial areas & multifamily developments as defined by the Ohio Building Code.
- 6.2.1.7** Hydrants shall have two (2) hose nozzles, 2-1/2 inches inside diameter with National Standard threads.
- 6.2.1.8** Hydrants shall have one (1) pumper nozzle, 4-1/2 inches inside diameter with National Standard threads.
- 6.2.1.9** Storz Connection – see standard drawing XXXX
- 6.2.1.10** Main valve shall open counterclockwise (left).
- 6.2.1.11** Operating nut shall be pentagon shaped, measuring 1-1/2 inches from point to opposite flat.
- 6.2.1.12** Bury shall be five (5) feet unless otherwise specified.
- 6.2.1.13** Draining devices shall be eliminated or the drain holes plugged.
- 6.2.1.14** The shoe shall have a six (6) inch-diameter inlet and a mechanical joint connection with accessories.
- 6.2.1.15** Fire hydrants approved for use in the City of Hilliard are the American Darling “Mark 73” or “B-84-B”, the Clow “Medallion,” and the Mueller “Centurion.”
- 6.2.1.16** The Contractor/Developer shall submit detailed drawings and specifications for the hydrant to the Service Director for approval prior to installation.
- 6.2.1.17** For publicly-owned and maintained hydrants (located in public street right-of-way or an abutting easement), the color of the barrel and caps shall be Royal Blue, Sherwin Williams #6510 or approved equal, and the color of the bonnet shall be white. 3M high intensity reflectorized tape #3875 (blue) shall be wrapped around the top of the barrel, just below the bonnet.
- 6.2.1.18** For privately owned and maintained hydrants (located on private property), the color of the barrel and caps shall be Real Red, Sherwin Williams #6868

or approved equal, and a white bonnet is permitted. 3M high intensity reflectorized tape #3872 (red) shall be wrapped around the top of the barrel, just below the bonnet.

- 6.2.1.19** Where four (4) or more fire hydrants are to be installed on the project, or any phase of the project, the Contractor, Developer, or Owner shall furnish and deliver to the City of Hilliard, at no cost to the City, one (1) complete fire hydrant. When more than ten (10) fire hydrants are installed, an additional fire hydrant shall be furnished and delivered to the City of Hilliard, at no cost to the City. Each extra fire hydrant shall be complete with accessories, including operating wrench, special wrenches and tools, lubricants, and a repair kit necessary for the operation, maintenance and repair of fire hydrants.

## **6.2.2 Section 809.08, Basis of Payment**

The following City of Hilliard fire hydrant specification shall supersede Section 809.08:

- 6.2.2.1** Description shall include either “Fire Hydrant, Type “A” ”or “Fire Hydrant, Type “A modified” ” or “Fire Hydrant, Type “B” ”or “Fire Hydrant, Type “B modified.”
- 6.2.2.2** Description shall include “as per plan” with each type of fire hydrant, as per plan.

## **6.3 Standard Drawings**

The standard drawings of the City of Hilliard along with the City of Columbus current editions shall be referenced for all water line design.